

Date: Wednesday, 1/30/2008 7:52:00 AM
 User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services			Drawing Name	FRAME WELDMENT		
Job Number	37054			Part Number	D3330041		
Estimate Number	11202			Drawing Number	D3330 REV D		
P.O. Number				Project Number	N/A		
This Issue	1/30/2008	S.O. No.		Drawing Revision	D		
Prsht Rev.	NC			Material			
First Issue	/ /	Type	LARGE FAB ASSY	Due Date	2/20/2008	Qty:	2 Um: Each
Previous Run	37053						
Written By	<i>JKJ 01/30</i>						
Checked & Approved By							
Comment	Est. A 05.01.13 New Issue KJ/JLM est B 07.05.14 revC dwg ec Est C 07.12.19 Rev D ecn1085 EC						

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	D33301	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	<i>ds</i>
		Panel	
		Pick:	
		Qty Part Number Description Batch	
	1	D3330-1 Panel <i>B35482</i>	<i>ds</i>
2.0	D33302	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	<i>ds</i>
		Panel	
		Pick:	
		Qty Part Number Description Batch	
	1	D3330-2 Panel <i>B35486</i>	<i>ds</i>
3.0	D33303	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	<i>ds</i>
		Panel	
		Pick:	
		Qty Part Number Description Batch	
	1	D3330-3 Panel <i>B35487</i>	<i>ds</i>
4.0	D33305	Rail	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	<i>ds 08/03/05</i>
		Rail	
		Pick:	
		Qty Part Number Description Batch	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

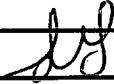
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/30/2008 7:52:00 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services			Drawing Name: FRAME WELDMENT
Job Number: 37054			Part Number: D3330041
Job Number: 			
Seq. #:	Machine Or Operation:	Description :	
1	D3330-5	Panel	<u>B36011</u> 
5.0	D33307	Panel	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Panel Pick: Qty Part Number Description Batch 1 D3330-7 Panel <u>B34122</u> 			
6.0	D33309	Top Plate	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Top Plate Pick: Qty Part Number Description Batch 1 D3330-9 Panel <u>B35488</u> 			
7.0	D333011	Long Pin Bracket	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Long Pin Bracket Pick: Qty Part Number Description Batch 1 D3330-11 Long Pin Bracket <u>B35483</u> 			
8.0	D333013	Short Pin Bracket	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Short Pin Bracket Pick: Qty Part Number Description Batch 1 D3330-13 Short Pin Bracket <u>B37079</u> 			
9.0	D333015	Handle	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) Handle Pick: Qty Part Number Description Batch 1 D3330-15 Handle <u>B3046 → 1x B37080 → 1x</u>  <u>1/30/08/03/05</u>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/30/2008 7:52:00 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 37054

Part Number: D3330041

Job Number:



Seq. #: Machine Or Operation:

Description :

10.0 D333017 Handle Socket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Handle Socket

Pick:

Qty	Part Number	Description	Batch
1	D3330-17	Handle Socket	B35484

bf

11.0 D333019 Handle Rim



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Handle Rim

Pick:

Qty	Part Number	Description	Batch
1	D3330-19	Handle Rim	B30957

bf

12.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble and Weld as per Dwg Dwg D3330 using D3330-041T1

Identify as D3330-041

bf 08/03/05 (2)

13.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 08/03/05 (2)

14.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/03/05 (2)

15.0 POWDER COATING POWDER COATING



M180 SQ

(2X)

Comment: POWDER COATING

Powder Coat Fire Red (Ref: 4.3.5.10) as per QSI 005 4.3

m.f 08/03/05

16.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FJ 08/03/05 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: Date: 08/03/04
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/30/2008 7:52:00 AM
User: Kim Johnston

Process Sheet

Customer:	CU-DAR001 Dart Helicopters Services	Drawing Name:	FRAME WELDMENT
Job Number:	37054	Part Number:	D3330041
Job Number:			
Seq. #:	Machine Or Operation:	Description :	
17.0	PACKAGING 1	PACKAGING RESOURCE #1	
<p>Comment: PACKAGING RESOURCE #1 Identify and Stock Location: (STEVE)</p> <p>SD 08/03/05</p>			
18.0	QC21	FINAL INSPECTION/W/O RELEASE	
<p>Comment: FINAL INSPECTION/W/O RELEASE</p> <p>DAK3/06</p>			
<p>Job Completion</p> <p>MI 2008/3/05</p> <p>(2)</p>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

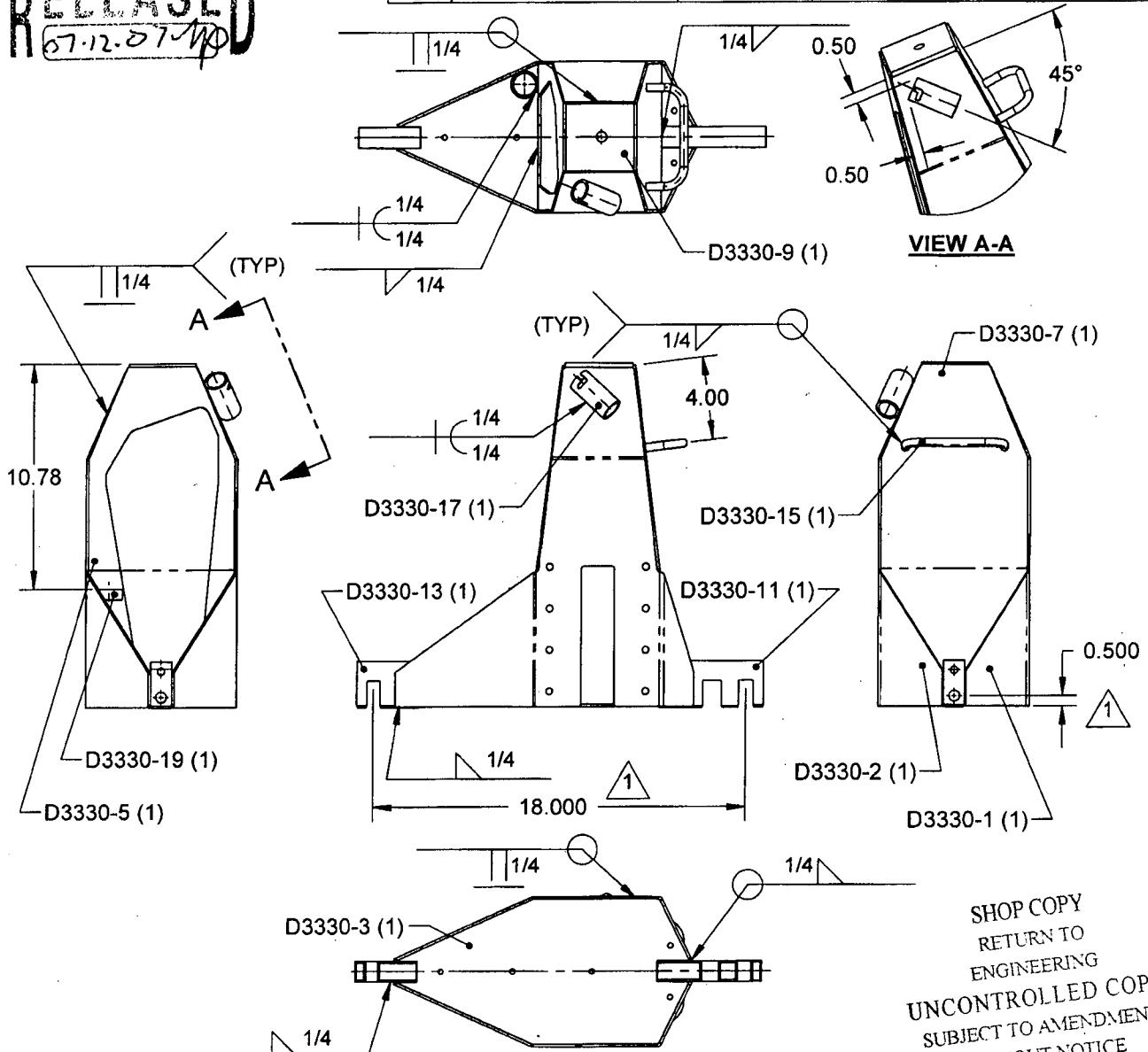
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN 13	DRAWN BY DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[initials]</i>	APPROVED <i>[initials]</i>	DRAWING NO. D3330	REV. D SHEET 1 OF 9
DATE 07.12.06	TITLE FRAME WELDMENT		SCALE 1:8

RELEASED
07.12.07 *[initials]***NOTES:**

- 1) POSITION PARTS AS PER JIG D3330-041T1
- 2) WELD PER QSI 004
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

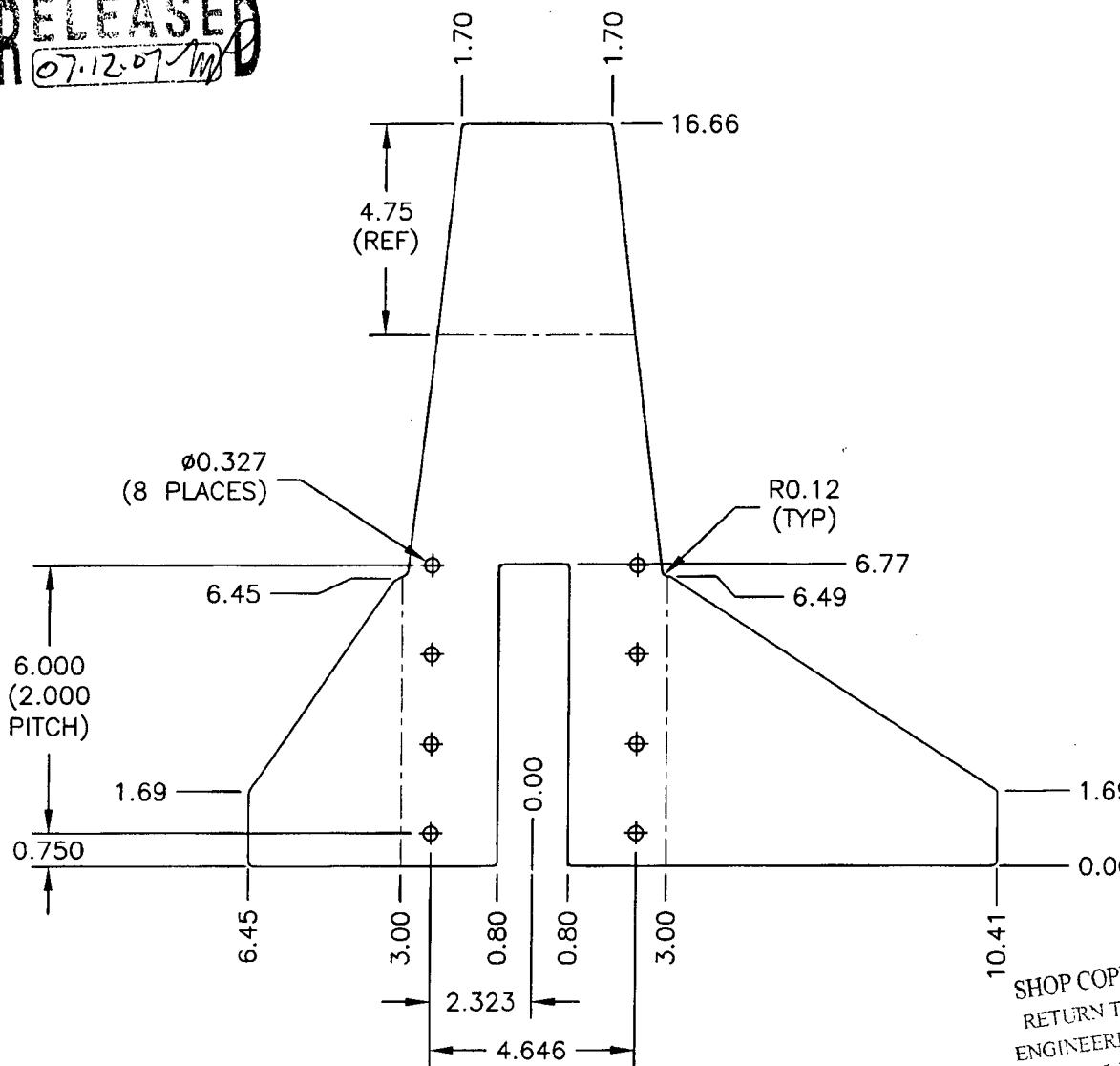
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *37054*

D3330-041 FRAME WELDMENT

DART

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>BS</i>	APPROVED <i>MW</i>	DRAWING NO. D3330	REV. D	SHEET 2 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4	

RELEASED
07.12.07 MPA



D3330-1 PANEL

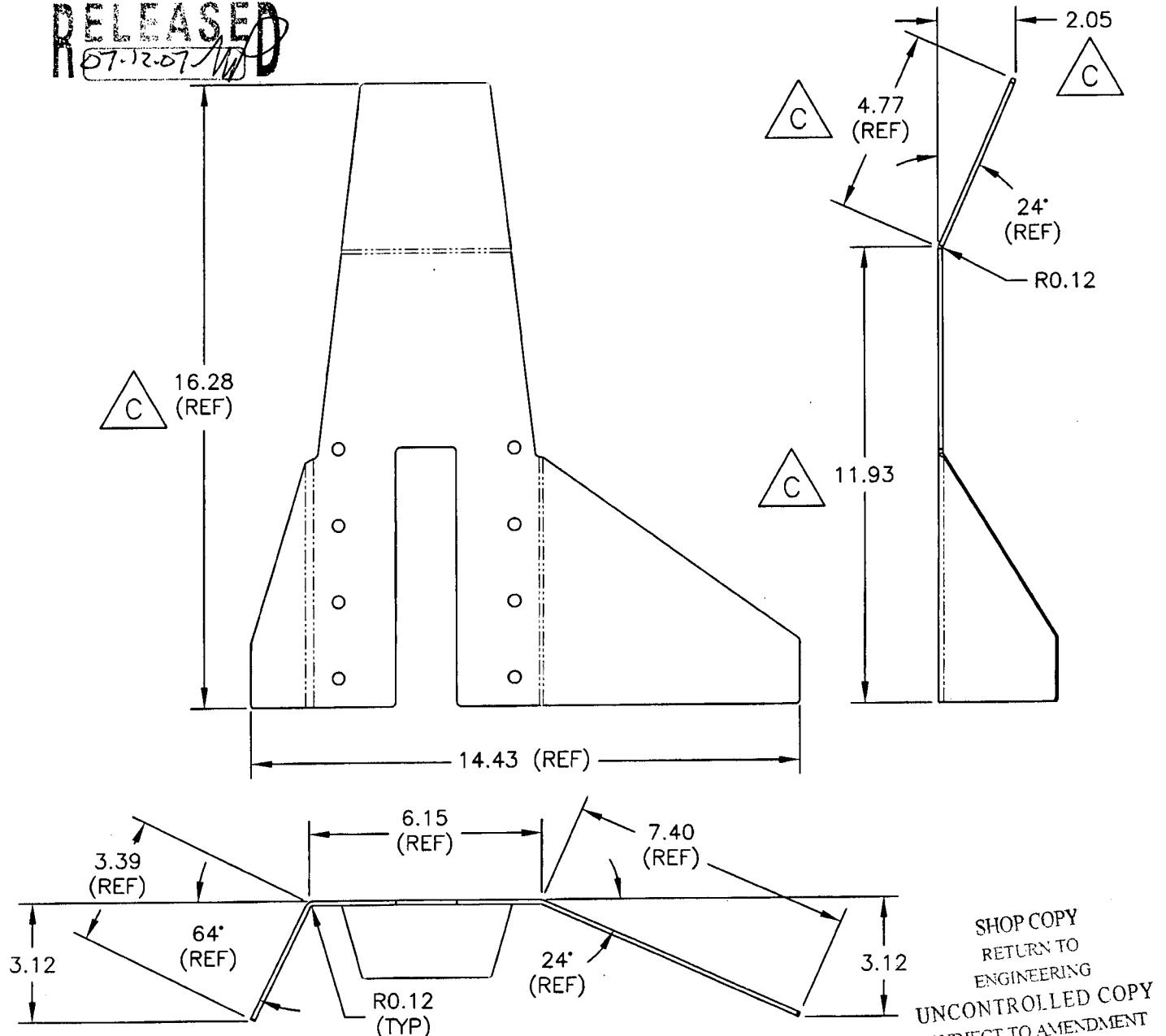
10
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 31054

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

DART

DESIGN HB	DRAWN BY <i>SC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED <i>AP</i>	APPROVED <i>AP</i>	DRAWING NO. D3330
DATE 07.12.06		TITLE FRAME WELDMENT

REV. D
SHEET 3 OF 9
SCALE
1:4**RELEASED**
07.12.07 *MD*

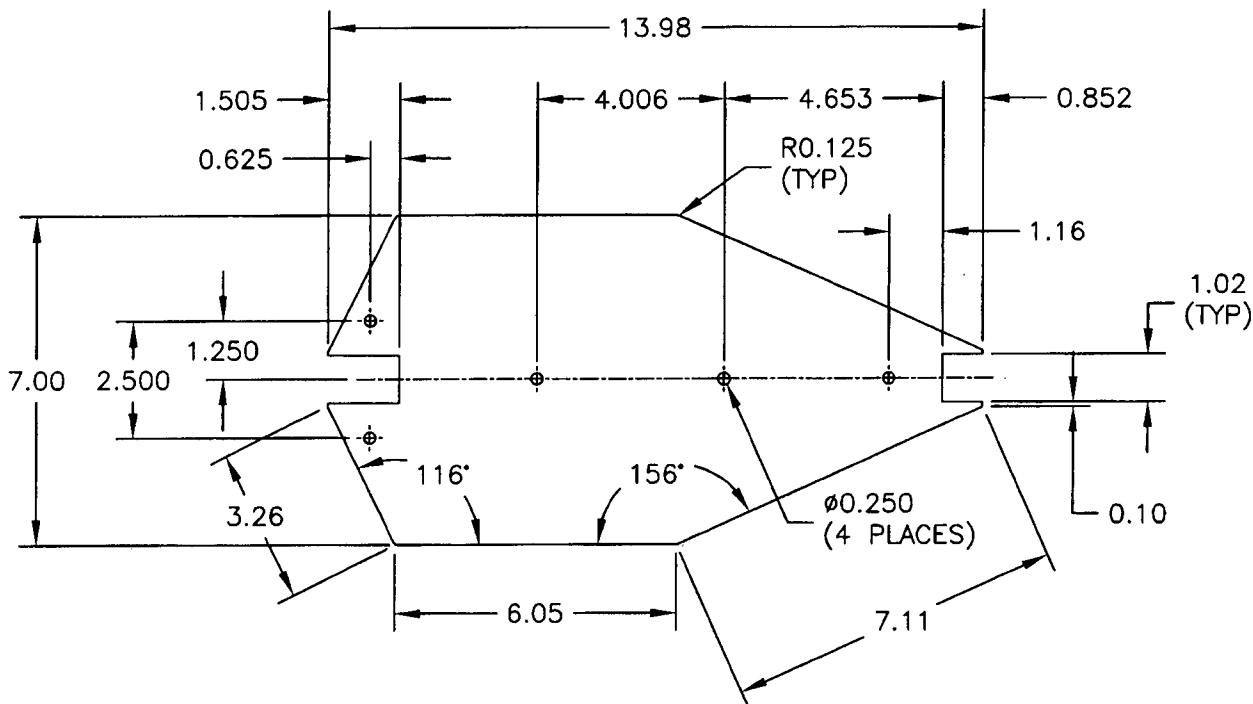
D3330-1 BEND DETAIL (SHOWN)
BEND D3330-2 (OPPOSITE)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *37054*

DART

DESIGN <i>B</i>	DRAWN BY <i>JL</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>B</i>	APPROVED <i>M</i>	DRAWING NO. D3330	REV. D SHEET 4 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

RELEASED
07.12.07 *MW*

**D3330-3 PLATE**

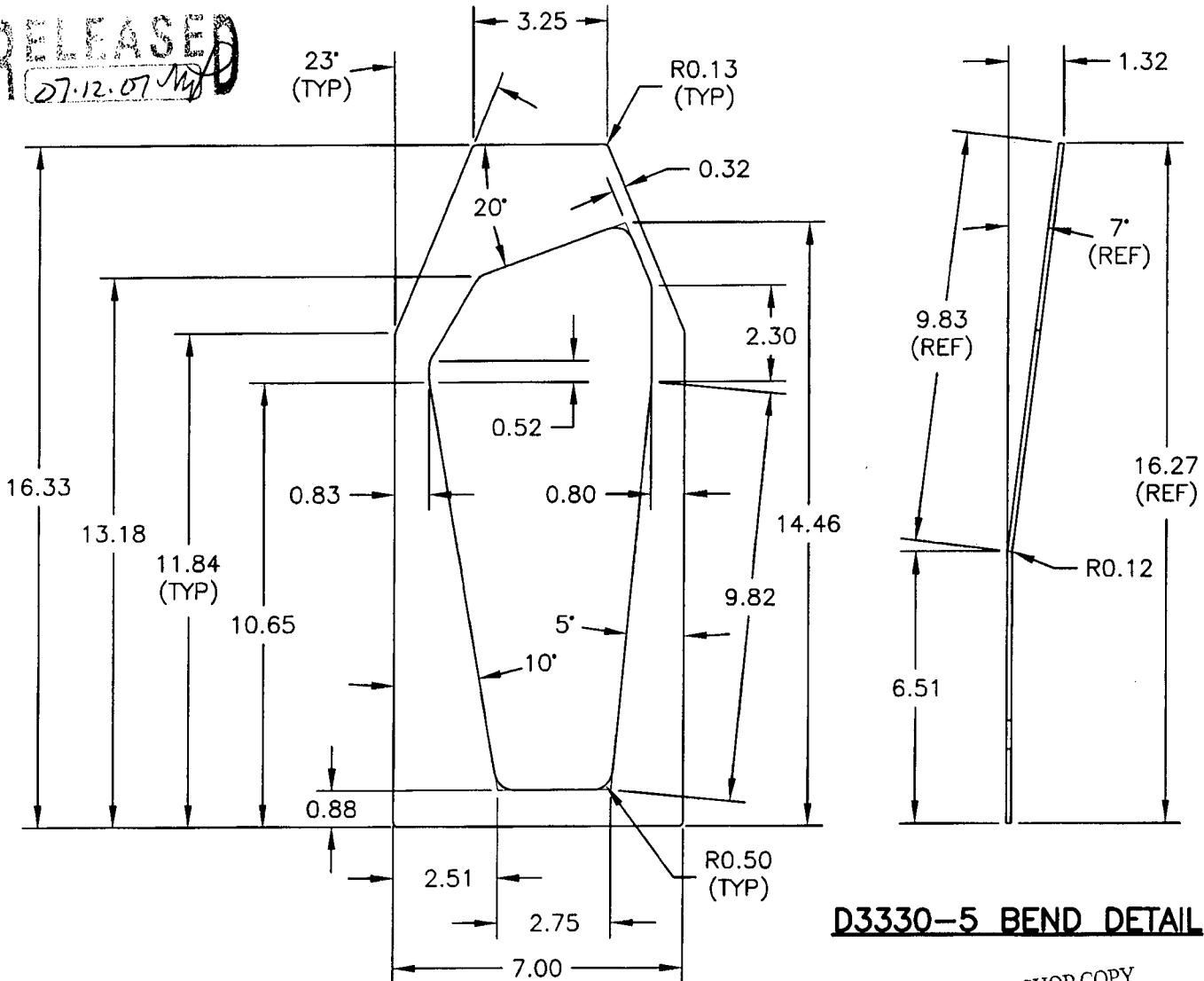
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *37054*

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

DART

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>J</i>	APPROVED <i>M</i>	DRAWING NO. D3330	REV. D SHEET 5 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

RELEASED
(07.12.07 M)**D3330-5 BEND DETAIL**

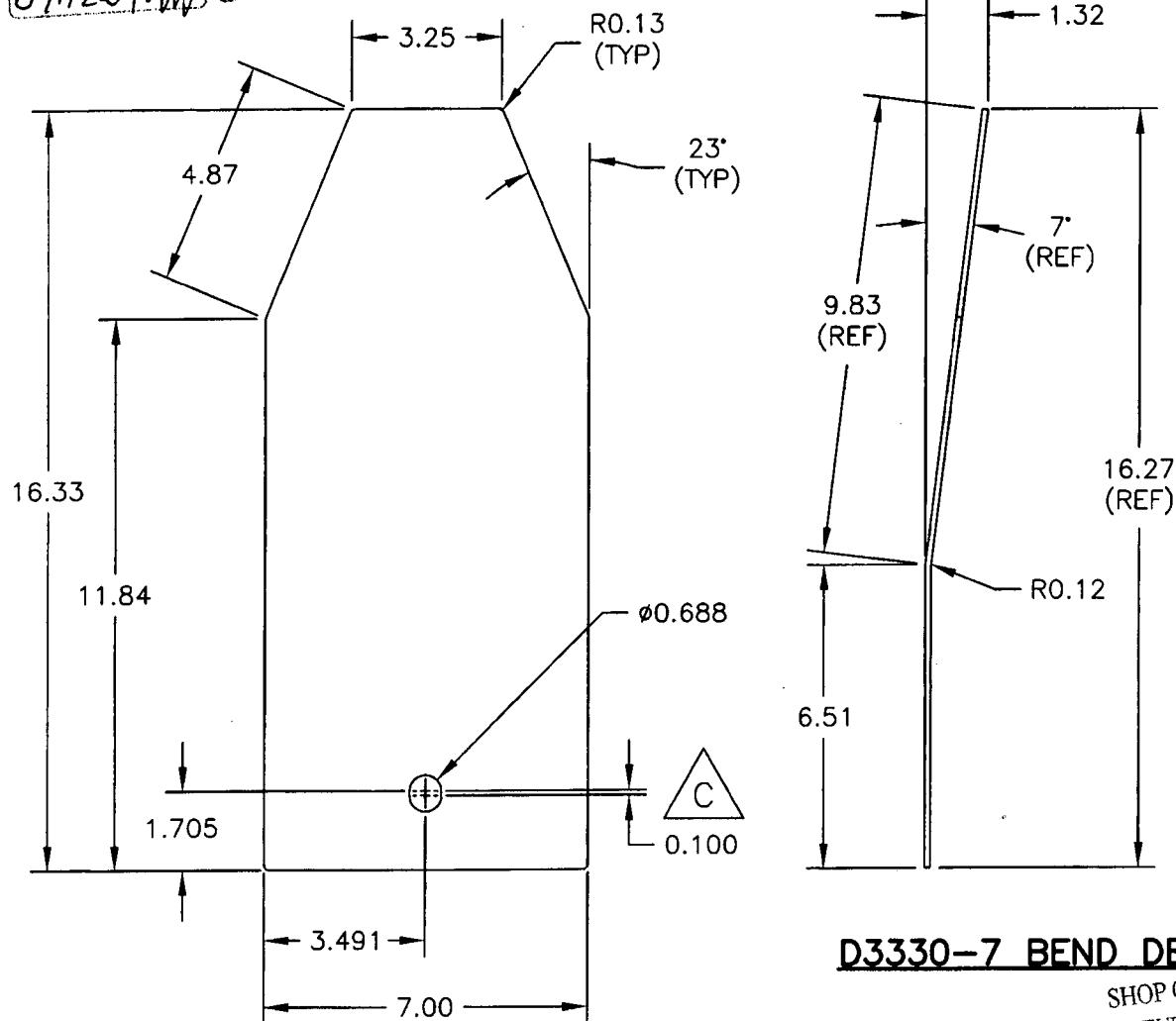
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
37054

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

DART

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED <i>B</i>	APPROVED <i>MW</i>	DRAWING NO. D3330
DATE 07.12.06		REV. D SHEET 6 OF 9 TITLE FRAME ASSEMBLY SCALE 1:4

RELEASED
07.12.07 MP**D3330-7 BEND DETAIL**

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
37054

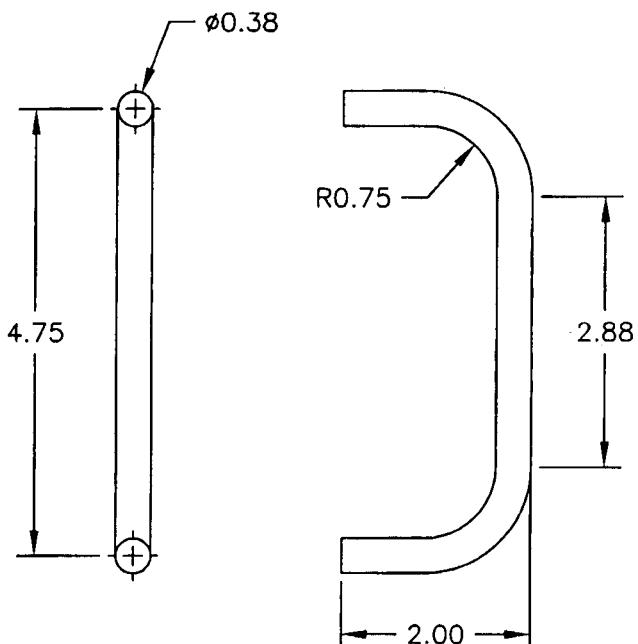
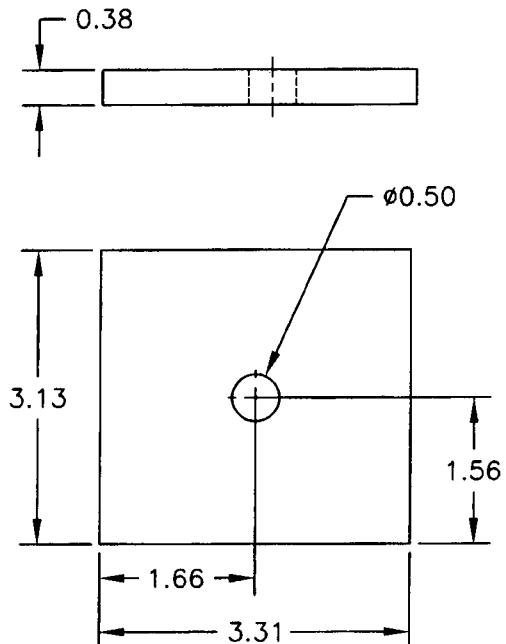
NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40 No. 21,
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

DART

DESIGN <i>B</i>	DRAWN BY <i>DCP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>MM</i>	APPROVED <i>MM</i>	DRAWING NO. D3330	REV. D SHEET 7 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:2

RELEASED
07.12.07 MM



△ D3330-9 TOP PLATE

△ D3330-15 HANDLE

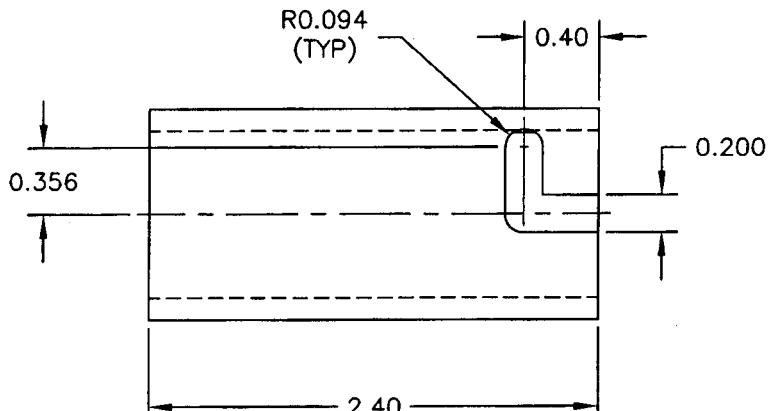
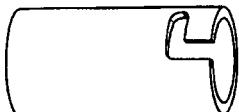
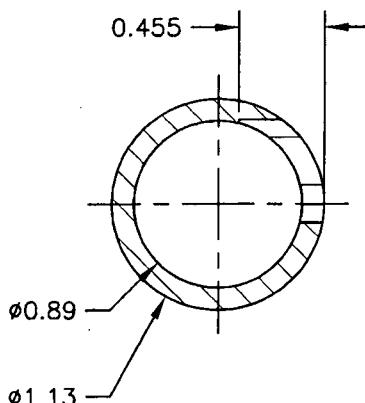
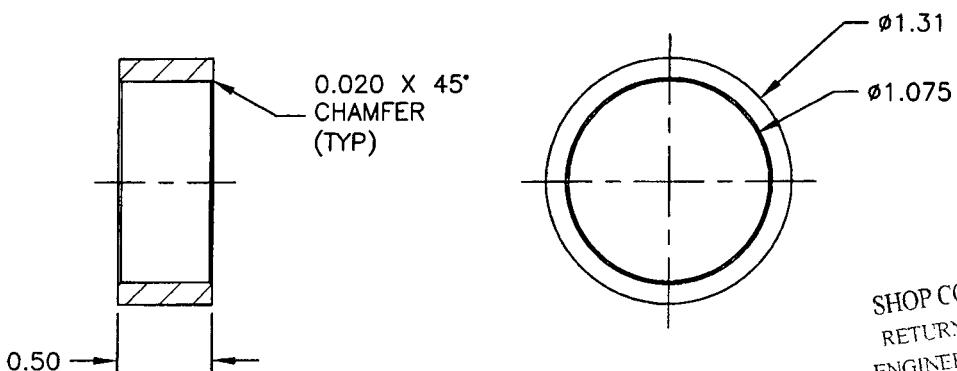
NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008, 0.375 STEEL
(REF. DART SPEC. M1010-B0.375x3.500)
- 2) MATERIAL: AISI 1018-1025 ROUND BAR PER MIL-S-7097
(REF. DART SPEC. M1018-R0.375)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *37054*

DART

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>N</i>	APPROVED <i>MW</i>	DRAWING NO. D3330	REV. D SHEET 8 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:1

**RELEASED**
07.12.07 MW**SECTION A-A****D3330-17 HANDLE SOCKET****D3330-19 HANDLE RIM**

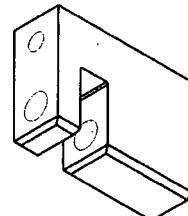
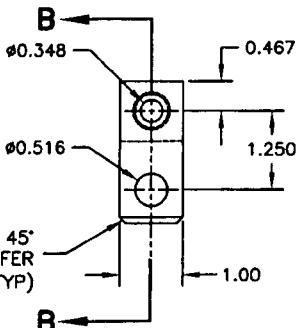
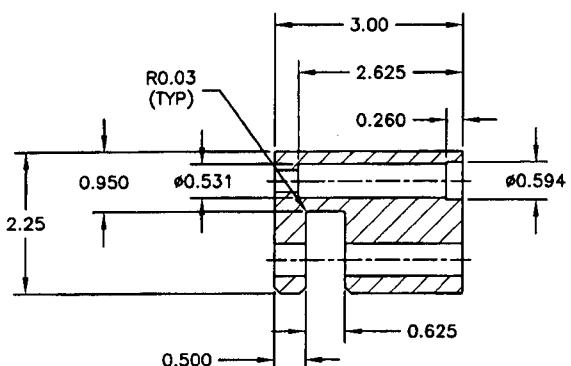
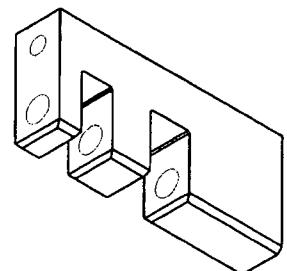
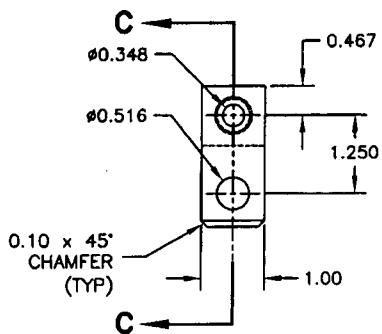
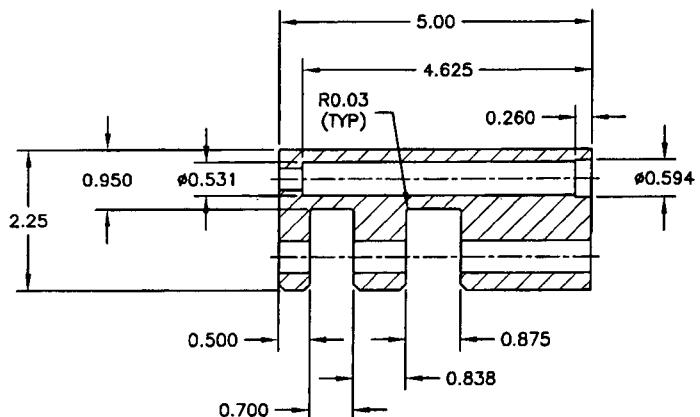
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *37054*

NOTES:

- 1) MATERIAL: 1010-1025 ROUND BAR STEEL PER MILL-S-7097
(REF. DART SPEC. M1025TR)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D3330
DATE 07.12.06		REV. D SHEET 9 OF 9 TITLE FRAME WELDMENT SCALE 1:3

**SECTION B-B****D3330-13 SHORT PIN BRACKET****SECTION C-C****D3330-11 LONG PIN BRACKET****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570, 1.000 THICK STEEL
(REF. DART SPEC. M1010-B1.000x02.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 37054